

Arrhythmias

THE RISK OF CARDIAC EVENTS AND QRS FRAGMENTATION IN THE PATIENTS WITH ARRHYTHMOGENIC RIGHT VENTRICULAR CARDIOMYOPATHY.

Poster Contributions

Poster Sessions, Expo North

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Background: There are limited data on the significance of QRS fragmentation (fQRS) and the risk of cardiac events in patients with arrhythmogenic right ventricular cardiomyopathy (ARVC).

Methods: We analyzed baseline 12-lead ECGs of 95 patients diagnosed with ARVC who had an implantable cardioverter-defibrillator (ICD) for the presence of fQRS. fQRS was defined as changes in QRS morphology (<120 ms) with different RSR' patterns: additional R wave (R'), notching of the S wave, or presence of >1 R' wave. The study outcome was death or an appropriate implantable cardioverter-defibrillator (ICD) therapy for ventricular tachycardia or ventricular fibrillation (VT/VF).

Results: fQRS was present in 29 patients. Fragmentation was distributed as following: 7 in septal leads (V1-V2), 11 in anterior leads (V1-V5), 24 in inferior leads (II, III, aVF) and 7 in lateral leads (I, aVL, V6). During a 40 +/- 20 months of follow-up, there were 42 events. The presence of fQRS in any lead was not associated with increased risk for event. However, when analyzing by specific region, fQRS in leads V1-V2 was associated with almost 2.8 times higher risk of death or appropriate therapy for VT/VF (HR=2.76, p=0.04). Cumulative probability of the event by the presence of fQRS in septal leads is shown in Figure 1.

Conclusion: Our study suggests that the presence of fQRS in septal leads V1 and V2 was associated with increased risk of cardiac events. The presence of fQRS in other leads did not increase the risk of an arrhythmic event.

